

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 2, 21, 23, 24, 31 and 32 in accordance with the following:

1. (currently amended) A method of searching for a match in a database of a plurality of records, where the records in the database correspond to files, comprising:

generating sample values for at least one portion of at least one selected file; and
determining at least one matching record in the database for the at least one selected file based on the sample values and ~~size~~an indication of an amount of data in the at least one selected file.

2. (currently amended) A method as recited in claim 1, wherein the files may be used to play back at least one of audio and video.

wherein said method further ~~comprising~~ comprises calculating approximate length ~~information~~playback times for the files represented by the records in the database and for the at least one selected file, and

wherein said determining is based on the approximate ~~length information~~playback times.

3. (previously presented) A method of searching for a match in a database of a plurality of records, where the records in the database correspond to recordings having at least one track, comprising:

generating sample values for at least one segment of a selected recording;
calculating an approximate length of each track of each recording represented in the database and of the selected recording; and

determining at least one matching record in the database for the selected recording based on the sample values and the number and length of tracks of the recordings represented in the database and the selected recording.

4. (previously presented) A method as recited in claim 3, wherein the recordings and the selected recording contain sampled digital data,

wherein said method further comprises storing an existing signature array for each of the recordings represented in the database, where each element of the existing signature array corresponds to a number of occurrences of the sampled digital data within a value band in at least one segment of the recordings represented in the database, and

wherein said generating produces an identifying signature array with each element of the identifying signature array corresponding to a number of occurrences of the sampled digital data within a value band in the at least one segment of the selected recording.

5. (previously presented) A method as recited in claim 4, wherein said determining includes

calculating an average difference between the elements of the identifying signature array and the existing signature array for the recordings represented in the database; and

identifying as a possible match any recording represented in the database for which the average difference is less than a predetermined value.

6. (original) A method as recited in claim 4, wherein said determining includes

calculating a matching percentage of corresponding elements in the identifying signature array and the existing signature arrays within a predetermined number of each other; and

indicating as a possible match any recording represented in the database for which the matching percentage is greater than a predetermined percentage.

7. (previously presented) A method as recited in claim 6, wherein the predetermined number is zero and the predetermined percentage is substantially 70%.

8. (previously presented) A method as recited in claim 6, wherein the predetermined number is one and the predetermined percentage is substantially 80%.

9. (original) A method as recited in claim 4, wherein the recordings are stored on removable storage media possessed by the user.

10. (original) A method as recited in claim 4, wherein the recordings are digital files stored on mass storage accessible by a listener of the selected recording.

11. (original) A method as recited in claim 3, further comprising receiving a query to search for a match between the selected recording and the records in the database, the query including the number of tracks and the length information for the selected recording.

12. (previously presented) A method as recited in claim 1, wherein sampled digital data represent the recordings and the selected recording,

wherein said method further comprises storing an existing signature array for each of the recordings represented in the database, where each element of the existing signature array corresponds to a number of occurrences of the sampled digital data within a value band in at least one segment of the recordings represented in the database, and

wherein said generating produces an identifying signature array with each element of the identifying signature array corresponding to a number of occurrences of the sampled digital data within a value band in the at least one segment of the selected recording.

13. (previously presented) A method as recited in claim 12, wherein said determining includes

calculating an average difference between the elements of the identifying signature array and the existing signature array for the recordings represented in the database; and

identifying as a possible match any recording represented in the database for which the average difference is less than a predetermined value.

14. (previously presented) A method of searching for a match in a database of a plurality of records, where the records in the database correspond to files of sampled digital data, comprising:

storing an existing signature array for each of the files represented in the database, where each element of the existing signature array corresponds to a number of occurrences of the sampled digital data in at least one portion of the files represented in the database;

generating sample values for at least a portion of at least one selected file to produce an identifying signature array with each element of the identifying signature array

corresponding to a number of occurrences of the sampled digital data in the at least one portion of the at least one selected file;

calculating a matching percentage of corresponding elements in the identifying signature array and the existing signature arrays within a predetermined number of each other; and

indicating as a possible match any of the files represented in the database for which the matching percentage is greater than a predetermined percentage.

15. (previously presented) A method as recited in claim 14, wherein the predetermined number is zero and the predetermined percentage is substantially 70%.

16. (previously presented) A method as recited in claim 14, wherein the predetermined number is one and the predetermined percentage is substantially 80%.

17. (previously presented) A method as recited in claim 14, wherein the files are stored on removable storage media possessed by the user.

18. (previously presented) A method as recited in claim 14, wherein the files are digital recordings stored on mass storage accessible by a listener of the at least one selected file.

19. (previously presented) A method of searching for a match in a database of a plurality of records, where the records in the database correspond to files of sampled digital data, comprising

generating sample values for at least one portion of at least one selected file output to a user at a first location by user equipment;

generating a query based on the sample values, by the user equipment; and

sending the query from the user equipment to a server at a second location where the database is stored, to search for at least one matching record.

20. (previously presented) A method as recited in claim 19, further comprising sending from the server to the user equipment, additional information stored in the at least one approximately matching record and not included in the at least one selected file.

21. (currently amended) A database system, comprising:

a storage unit storing a database of records including existing sample values for recordings corresponding to the records; and

a processing unit, coupled to said storage unit, executing instructions that generate ~~an~~ identifying sample values for a selected recording and determine at least one matching record in the database for the selected recording based on ~~the length~~ an indication of playback time of the selected recording and comparison of the identifying sample values with the existing sample values in the database.

22. (previously presented) A database system, comprising:

a storage unit storing a database of records including existing sample values for recordings corresponding to the records and information indicating length and number of identified segments of the recordings; and

a processing unit, coupled to said storage unit, executing instructions that generate identifying sample values and approximate length information for a selected recording and determine at least one matching record in the database for the selected recording based on a comparison of the identifying sample values with the existing sample values in the database, and the approximate length information and a number of identified segments in the selected recording and the recordings corresponding to the records in the database.

23. (currently amended) A database system as recited in claim 21, wherein the recordings contain sampled digital data,

wherein said storage unit stores ~~the~~ an existing signature array with each element corresponding to a number of occurrences of the sampled digital data within a value band in at least one segment of the recordings represented in the database, and

wherein said processing unit generates ~~the~~ an identifying signature array with each element corresponding to a number of occurrences of the sampled digital data within a value band in at least one segment of the selected recording and determines the at least one matching record by calculating an average difference between the elements of the identifying signature array and the existing signature array for the recordings represented in the database and identifying as a possible match any recording represented in the database for which the average difference is less than a predetermined value.

24. (currently amended) A database system as recited in claim 21, wherein the recordings contain sampled digital data,

wherein said storage unit stores ~~the~~an existing signature array with each element corresponding to a number of occurrences of the sampled digital data within a value band in at least one segment of the recordings represented in the database, and

wherein said processing unit generates ~~the~~an identifying signature array with each element corresponding to a number of occurrences of the sampled digital data within a value band in at least one segment of the selected recording and determines the at least one matching record by calculating a matching percentage of corresponding elements in the identifying signature array and the existing signature arrays within a predetermined number of each other and indicating as a possible match any recording represented in the database for which the matching percentage is greater than a predetermined percentage.

25. (previously presented) A database system, comprising:

a storage unit storing a database of records including existing sample values for recordings corresponding to the records;

a communication unit, coupled to said storage unit, to receive a query to search for a match between a selected recording and the records in the database, the query including the number of segments and the length information for the selected recording; and

a processing unit, coupled to said storage unit, executing instructions that generate identifying sample values for a selected recording and determine at least one matching record in the database for the selected recording by comparing the identifying sample values with the existing sample values in the database.

26. (original) A database system as recited in claim 25, wherein the recordings corresponding to the records in the database and the selected recording each contain at least an audio portion and the number of segments are the number of tracks in the audio portion.

27. (original) A database system as recited in claim 26, wherein the recordings are stored on removable storage media possessed by the user.

28. (original) A database system as recited in claim 26, wherein the recordings are digital files stored on mass storage accessible by a listener of the selected recording.

29. (previously presented) A database system as recited in claim 25,
wherein said processing unit, storage unit and communication unit are at a first location, and
wherein said database system further comprises:
equipment possessed by a user at a second location, remote from the first location, to generate the query and play the selected recording; and
a communication network coupling said equipment and said communication unit at least for sufficient time to send the query from said equipment to said communication unit.

30. (original) A database system as recited in claim 29, wherein said communication unit sends to the equipment via said communication network additional information stored in the at least one approximately matching record and not included in the selected recording.

31. (currently amended) At least one computer program stored on a computer-readable medium, embodying a method of searching for a match in a database of a plurality of records, where the records in the database correspond to files, comprising:

generating sampled values for at least one segment of at least one selected file;
and

determining at least one matching record in the database for the at least one selected file based on the sampled values and ~~size~~ an indication of an amount of data in the at least one selected file.

32. (currently amended) At least one computer program as recited in claim 31, wherein the files may be used to play back at least one of audio and video.

wherein the method further comprising-comprises calculating approximate length ~~information~~ information ~~playback times for the files represented by~~ the records in the database and for the at least one selected file, and

wherein said determining is also based on the approximate-length-information playback times.

33. (previously presented) At least one computer program stored on a computer-readable medium, embodying a method of searching for a match in a database of a plurality of records, where the records in the database correspond to recordings having at least one track, comprising:

- generating sample values for at least one segment of a selected recording;
- calculating an approximate length of each track of each recording represented in the database and of the selected recording; and
- determining at least one matching record in the database for the selected recording based on the sample values and the number and length of tracks of the recordings represented in the database and the selected recording.

34. (previously presented) At least one computer program as recited in claim 33, wherein sampled digital data represent the recordings and the selected recording,

- wherein said method further comprises storing an existing signature array for each of the recordings represented in the database, where each element of the existing signature array corresponds to a number of occurrences of the sampled digital data within a value band in at least one segment of the recordings represented in the database, and

- wherein said generating produces an identifying signature array with each element of the identifying signature array corresponding to a number of occurrences of the sampled digital data within a value band in the at least one segment of the selected recording.

35. (previously presented) At least one computer program as recited in claim 34, wherein said determining includes

- calculating an average difference between the elements of the identifying signature array and the existing signature array for the recordings represented in the database;
- and

- identifying as a possible match any recording represented in the database for which the average difference is less than a predetermined value.

36. (original) At least one computer program as recited in claim 34, wherein said determining includes

- calculating a matching percentage of corresponding elements in the identifying signature array and the existing signature arrays within a predetermined number of each other;
- and

indicating as a possible match any recording represented in the database for which the matching percentage is greater than a predetermined percentage.

37. (original) At least one computer program as recited in claim 34, wherein the recordings are stored on removable storage media possessed by the user.

38. (original) At least one computer program as recited in claim 34, wherein the recordings are digital files stored on mass storage accessible by a listener of the selected recording.

39. (original) At least one computer program as recited in claim 33, further comprising receiving a query to search for a match between the selected recording and the records in the database, the query including the number of tracks and the length information for the selected recording.

40. (previously presented) At least one computer program as recited in claim 31, wherein sampled digital data represent the recordings and the selected recording,
wherein said method further comprises storing an existing signature array for each of the recordings represented in the database, where each element of the existing signature array corresponds to a number of occurrences of the sampled digital data within a value band in at least one segment of the recordings represented in the database, and
wherein said generating produces an identifying signature array with each element of the identifying signature array corresponding to a number of occurrences of the sampled digital data within a value band in the at least one segment of the selected recording.

41. (previously presented) At least one computer program as recited in claim 40, wherein said determining includes
calculating an average difference between the elements of the identifying signature array and the existing signature array for the recordings represented in the database;
and
identifying as a possible match any recording represented in the database for which the average difference is less than a predetermined value.

42. (original) At least one computer program as recited in claim 40, wherein said determining includes

calculating a matching percentage of corresponding elements in the identifying signature array and the existing signature arrays within a predetermined number of each other; and

indicating as a possible match any recording represented in the database for which the matching percentage is greater than a predetermined percentage.

43. (original) At least one computer program as recited in claim 40, wherein the recordings are stored on removable storage media possessed by the user.

44. (original) At least one computer program as recited in claim 43, wherein the recordings are digital files stored on mass storage accessible by a listener of the selected recording.

45. (original) At least one computer program as recited in claim 40, wherein the selected recording is played at a first location on equipment possessed by a user, and

wherein said method further comprises:

generating a query by the equipment at the first location; and

sending the query to a server at a second location where the database is stored, to search for at least one matching record.

46. (original) At least one computer program as recited in claim 45, further comprising sending from the server to the equipment at the first location additional information stored in the at least one approximately matching record and not included in the selected recording.